REMARKS/ARGUMENTS

Claim Status

Claims 1-73 are pending in this application. Claims 1-4, 8-22, 29-35, 39-53, 60-63, 65-67, and 69-73 stand rejected. Claims 5-7, 23-28, 36-38, 54-59, 64, and 68 stand objected to.

Claim Rejections - 35 U.S.C. § 103

Claims 1-4, 8-13, 29-35, 39-44, 62-63, and 66-67 stand rejected over 35 U.S.C. § 103(a) as being unpatentable over Kawai (U.S. Pat. No. 5,717,924) in view of Goldring (U.S. Pat. No. 5,553,279). More specifically, the Office Action acknowledges that Kawai does not teach "a history table for storing historical data" or "transfer logic for periodically transferring new data from the insert table to the history table," as expressly recited by claim 1 of the present application.

The Office Action asserts, however, that Goldring teaches these limitations of claim 1, and that it would have been obvious to modify the teachings of Kawai using the teachings of Goldring to produce an operational data store satisfying all of the limitations of claim 1. More specifically, the Office Action states that the "consistent change data table" of Goldring reads on the "history table" of claim 1, and that Goldring teaches transfer logic for

periodically transferring new data from an insert table to the consistent change data table.

Applicant respectfully disagrees with this interpretation of Goldring and therefore traverses the rejection of claim 1 over the combination of Kawai and Goldring. Even if it is assumed for purposes of argument that Goldring teaches *copying* data from an insert table to a history table, Goldring does not teach or suggest *transferring* data from an insert table to a history table, as expressly required by claim 1. In fact, Goldring teaches away from *transferring* data.

When data are *copied* from a source A to a destination B, the data at source A are remain in source C. Therefore, when the copy operation is complete, there are two copies of the data: at the source A and at the destination B. When data are *transferred* from a source A to a destination B, the data at source A do not remain at source A. Therefore, when the transfer operation is complete, there is only one copy of the data: at the destination B.

This meaning of "transfer" is supported by the specification of the present application. For example, the specification states that a "table exchange process 56 . . . from time to time moves data from the insert table 32 to the historical table 30 *by exchanging pointers to partitions and sub-partitions of the two tables 30, 32* to sustain a high transaction insert rate" (p. 6, lines 22-25)

(emphasis added). If data are transferred by exchanging pointers between the insert table and the history table, then the data originally in the insert table are no longer in the insert table when the transfer (exchange) operation is complete.

In contrast, Goldring discloses techniques for *copying* data from an activity log into a consistent change data table, without removing the data from the activity log. As a result, there are two copies of the data: one in the activity log and one in the consistent change data table. Therefore, even if the consistent change data table is assumed for purposes of argument to be a "history table" within the meaning of claim 1, Goldring does not teach "transferring" data into the consistent change data table.

For example, Goldring discloses:

> a computer system that receives sequences of updates to source data tables in a database and records them into an activity log for later retrieval, generates a consistent change data table from the retrieved activity log such that the consistent change data table contains sufficient change information to refresh copies of the source data through multiple generations of target copies by consulting the consistent change data table and applying the table entries to the last prior refreshed source table. The consistent change data table contains committed change operations retrieved from the activity log in the order in which they were committed,

beginning with a time no earlier than the last prior refresh. (Col. 2, line 66 - col. 3, line 11.)

Goldring does not teach or suggest removing data from the source data tables or the activity log. In other words, the data are not *transferred* from the source data tables to the activity log, or from the activity log to the consistent change data table, but only *copied*.

In fact, *transferring* data in the system disclosed by Goldring would make the system inoperable. The purpose of the activity log is to record changes that have been made to source data tables in a database, so that such data may be recovered in the event of a system failure or equipment malfunction (col. 1, lines 45-57). For example, if a new record is inserted into a source data table, the new record is recorded in the activity log. As a result, the activity log contains a *copy* of the data in the new record. Goldring discloses no reason to instead *transfer* data from the new record to the activity log, such as by deleting the new record from the source data table after copying it to the activity log. In fact, performing such a transfer would corrupt the source data table and make it inoperable. Goldring neither discloses nor suggests *transferring* data (from either the source data table or the activity log) to the consistent change data table for at least the same reason.

In summary, even if the teachings of Kawai were modified by the teachings of Goldring, the combination thereof would not read on an express limitation of claim 1, namely "transfer logic for periodically transferring new data from the insert table to the history table." Claim 1, therefore, patentably distinguishes over the combination of Kawai and Goldring. Claims 2-4, 8-13, and 29-31 depend, either directly or indirectly, from claim 1, and therefore patentably distinguish over the combination of Kawai and Goldring for at least the same reason.

Claim 32 is a method claim that includes substantially the same relevant limitation as claim 1, and which therefore patentably distinguishes over the combination of Kawai and Goldring for at least the same reason. Claims 33-35 and 39-44 depend, either directly or indirectly, from claim 32, and therefore patentably distinguish over the combination of Kawai and Goldring for at least the same reason.

Claim 62 is directed to an operational data store which includes substantially the same relevant limitation as claim 1, and which therefore patentably distinguishes over the combination of Kawai and Goldring for at least the same reason. Claim 63 depends from claim 62, and therefore patentably distinguishes over the combination of Kawai and Goldring for at least the same reason.

Claim 66 is directed to a computer program product for operating an operational data store, which includes substantially the same relevant limitation as claim 1, and which therefore patentably distinguishes over the combination of Kawai and Goldring for at least the same reason. Claim 67 depends from claim 66, and therefore patentably distinguishes over the combination of Kawai and Goldring for at least the same reason.

Claims 14-22 and 45-53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawai in view of Goldring and further in view of Kessler. Claims 14-22 depend, either directly or indirectly, from claim 1. Claims 45-53 depend, either directly or indirectly, from claim 32. All of claims 14-22 and 45-53, therefore, include substantially the same relevant limitation as claim 1. None of the above-referenced references, however, either alone or in combination, teaches or suggests the above-referenced limitation of claim 1. Claims 14-22 and 45-53, therefore, patentably distinguish over the cited combination for at least the reasons provided above.

Claims 60-61, 65, and 69 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawai in view of Vandivier, III (U.S. Pat. No. 5,978,771). According to the Office Action, Kawai discloses "exchanging the temporary table with the new partition" at FIG. 10B, element 348. This is not correct. Element 348 of FIG.

10B in Kawai merely discloses *copying* data from a temporary table to a new table, not *exchanging* the temporary table with the new table (col. 16, lines 1-11). An exchange is a two-way process. Kawai only discloses a one-way process: copying data from the temporary table to the new table.

Kawai therefore fails to disclose an express element of claim 60. Furthermore, Vandivier, III does not disclose this express element of claim 60. The Office Action does not point to any motivation, either within the references or elsewhere, to modify the teachings of the references to produce this express element of claim 60. Claim 60, therefore, patentably distinguishes over the combination of Kawai and Vandivier, III. Claim 61 depends from claim 60 and therefore patentably distinguishes over the cited combination for at least the same reason.

Claims 65 and 69 contain substantially the same relevant limitation as claim 60 and therefore patentably distinguish over the cited combination for at least the same reason.

Claims 70-73 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Battas et al. (U.S. Pat. No. 6,757,706) in view of Goldring (U.S. Pat. No. 5,553,279). More specifically, the Office Action acknowledges that Battas does not teach "a throttler for throttling selected transactions to the ODS," as required by claim

70. The Office Action asserts that this limitation is disclosed by Goldring at col. 7, lines 10-15.

Applicant respectfully disagrees with this interpretation of Goldring. Support for the "throttler" limitation of claim 70 may be found, for example, in the present application at p. 4, lines 16-20; p. 6, lines 16-17; p. 7, lines 24-25; p. 8, lines 1-6; p. 9, lines 4-28; and p. 10, lines 1-24. For example, the present application provides one example of throttling selected transactions at p. 98, lines 7-10, stating that "[t]o achieve a desired level of service, different 'classes' of transactions may be independently throttled. That is, to provide the desired performance of the high-speed inserts, *queries may need to be slowed, so that the higher-priority insert transactions can execute at full speed*" (emphasis added).

Nothing in the cited passage of Goldring, however, describes "throttling selected transactions to the ODS" as required by claim 70. As described in the present application, for example, at page 9, lines 8-10, one example of throttling selected transactions is slowing the processing of query transactions so that higher-priority insert transactions can execute at full speed. The Office Action does not point to anything in Goldring which teaches or suggests slowing or otherwise throttling the processing of selected transactions, and Goldring does not in fact provide any such

teaching or suggestion. Applicant therefore traverses the rejection of claim 70 and respectfully requests that it be reversed.

Claim 71 depends from claim 70 and therefore patentably distinguishes over the combination of Battas and Goldring for at least the same reason. Claim 72 includes substantially the same relevant limitation as claim 71 and therefore patentably distinguishes over the combination of Battas and Goldring for at least the same reason. Claim 73 depends from claim 72 and therefore patentably distinguishes over the combination of Battas and Goldring for at least the same reason.

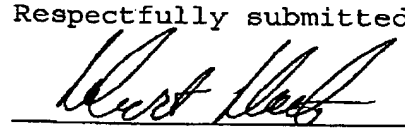
CONCLUSIONS

Any dependent claims not specifically discussed above depend, either directly or indirectly, from the independent claims discussed above and therefore are patentable for at least the same reason(s).

If the Examiner wishes to discuss this Response, the Examiner is requested to call the Applicant's attorney at the phone number listed below.

If this response is not considered timely filed and if a request for extension of time is otherwise absent, applicant hereby requests any extension of time. Please charge any fees or make any credits, to Deposit Account No. 08-2025.

Respectfully submitted,



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